



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/251,403	02/17/1999	MASAHITO NIKAWA	013227-049	3197

21839 7590 03/27/2003

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
----------	--------------

2615

11

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/251,403

Applicant(s)

NIIKAWA ET AL.

Examiner

James A. Fletcher

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 4, 5, 6, 8, 10, 12, 14, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamaire et al (6,378,053) in further view of Ichimura (6,188,831)

Regarding claims 1 and 4, Lamaire et al disclose a device and method for processing images on a recording medium comprising:

- an indicator which commands a processing to be executed for the image (Col 5, lines 43-45 "a cache directory entry [CDE]...for managing a network object cache")
- a deletion directional member which directs to delete the image recorded in the image recording medium (Col 5, line 66 - Col 6, line 1 "pointers to the CDEs for the most-recently-used object and the least-recently-used object." Since this pointer indicates the least-recently-used object, it indicates the next object to be replaced by a low-resolution object. See Col 6, lines 26-30 "If however in step 520 it was determined that there was insufficient free cache

memory, control proceeds to step 540. In this step the least-recently-used object `y` is found. The space allocated to this object consisting of `Sy` bytes is made free. ")

- a compressor which compresses the image based on the data when the deletion directional member directs to delete the image (Col 4, lines 2-3 "a specific hardware component for reducing the resolution of a network object") and
- a recorder which stores the compressed image (Col 4, lines 10-13 "The cache manager...uses the information in the cache directory to store...network objects in the cache memory.")
- Although Lamaire suggests a controller which sets up data in accordance with the processing command by the indicator; (Col 5, lines 61-63 "the full network object name is stored in CDE field 410, and the type of object...is stored in CDE field 420"), he does not specifically disclose the use of that data to rank the images in order of importance.

Ichimura teaches a controller that ranks images and sets their compression accordingly (Col 18, lines 52-54 "image data...stored in the time-series data storing section are compressed when the level of importance is low").

As suggested by Lamaire and taught by Ichimura, varying the compression of data based on its importance can help optimize storage and transmission capacity. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to vary the compression of image data based on its importance.

Regarding claim 2, Lamaire et al disclose a device wherein the compressor alters a compression rate of the image based on the data (Col 2, lines 8-9 “dynamically reducing the resolution of a multiresolution object” and Col 4, lines 37-39 “a lower resolution version of an object requires less storage space than a higher resolution version of that object”)

Regarding claim 3, Lamaire et al disclose an image processing device wherein the data is evaluation value for the image (Col 5, line 66 - Col 6, line 1 “pointers to the CDEs for the most-recently-used object and the least-recently-used object”)

4. Claims 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (5,924,092) in further view of Ichimura.

Regarding claims 5 and 8, Johnson discloses an image processing device comprising:

- an indicator which commands a processing step to be executed for the image data (Col 5, lines 41-42 “If the cache is full, however, “old” data must first be removed from the cache...” The full cache is the indicator.)
- a recorder and step of recording which records a time when the indicator commands a processing (Col 5, lines 41 “old’ data”. In order to determine the age of the data, a time of processing of the data is inherently stored.)

- a timer and step of measuring time since the time of processing (Col 5, line 41 "'old' data". In order to determine the age of the data, a measurement of the time since processing of the data is inherently stored.)
- Although Johnson suggests a controller and step of setting up compression rate for the image data (Col 5, lines 43-45 "The old data is typically processed by a compression engine to recompress the data and store it back in partition 44", he does not specifically disclose setting that compression rate based on an evaluation value for the image based on the output of the timer.

Ichimura teaches a controller that ranks images based on a timer and sets their compression accordingly (Col 18, lines 52-54 "image data...stored in the time-series data storing section are compressed when the level of importance is low [such as when a preset time has elapsed since the data was stored]").

As suggested by Johnson and taught by Ichimura, varying the compression of data based on its importance can help optimize storage and transmission capacity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to vary the compression of image data based on its importance.

Regarding claim 6, Johnson discloses an image processing device comprising:

- a detector which detects that the indicator gives no command for a predetermined time or more based on the output from the timer (Col 5, line 41 "'old' data". In order to determine if data is "old", a measurement of the time

since processing of the data, and a threshold for that measurement is inherent.)

- a controller which controls so as to increase said compression rate based on the output from the detector data (Col 5, lines 43-45 "The old data is typically processed by a compression engine to recompress the data and store it back in partition 44").

Regarding claims 7 and 9, Johnson discloses an image processing device and step wherein a lower evaluation value for the image data is set when the indicator gives no command for a predetermined time or more, based on the output from the timer (Col 5, line 41 "'old' data". In order to determine if data is "old", a measurement of the time since processing of the data, and a threshold for that measurement is inherent.)

Regarding claims 10 and 12, please see Examiner's remarks regarding claims 5 and 8.

Regarding claims 11 and 13, Johnson reveals an image processing device and processing step wherein the evaluation value is set up in accordance with the command from the indicator (Col 5, lines 43-45 "The old data is typically processed by a compression engine to recompress the data and store it back in partition 44." When old data is indicated, the command causes the data to be recompressed).

5. Claims 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al (6,348,974) in further view of Parulski et al (5,241,659).

Regarding claims 14 and 17, Takahashi et al disclose an image processing method and system for processing images which are recorded in a recording medium, comprising:

- a transfer circuit and step for transferring images from a first recording medium into a second recording medium (Col 1, lines 13-19 “an input image...is compressed and stored as image information...and thereafter, this image information is expanded and printed [formation of a visual image on a medium]”)
- a deletion member and step to direct deletion of the image (Col 21, lines 30-33 “when printing...is completed...the image information of all the pages of the original is accessed and deleted at one time”)
- a detector and step of judging whether the image has been transferred into the second recording medium based on the data when the deletion member or step directs to delete the image (Col 21, lines 30-33 “when printing...is completed...the image information of all the pages of the original is accessed and deleted at one time”); and
- an indicator and step of indicating the output of the detector (Col 12, lines 15-18 “The status indicator 117 indicates a status of the copying machine by displays of various kinds of pictures and characters while flashing”).
- Takahashi et al suggest a recorder and step which records data indicating that the image recorded in the first recording medium is transferred into the second recording (Col 12, lines 15-18 “The status indicator 117 indicates a status of the copying machine by displays of various kinds of pictures and characters while

flashing”), but do not specifically disclose recording the ID data of the second recording medium, indicating that the image was transferred into the second recording medium.

Parulski et al teach of a memory recording the pictures that have been transferred to an external memory (Col 9, lines 18-21 “The pointer table contains disc ID pointer entries for all discs which have been previously inserted into playback device and programmed”).

As suggested by Takahashi et al and taught by Parulski et al, recording a list of images that have been transferred to a removable memory helps assure the user that images have been saved in a long-term medium. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to record data indicating that an image had been transferred to another memory medium.

Regarding claims 15 and 18, Takahashi et al disclose an image processing system wherein image data are deleted on the direction of the data from the deletion directional member (Figure 16, steps S113 and S114 indicate a data deletion step that only occurs once the third copies have been printed. In order to determine that the third copies had been printed, it is inherent that a data deletion member based on the completion of printing be part of the disclosed system.).

Regarding claim 16, Takahashi et al disclose an image processing system wherein the data is recorded in the first recording medium (Col 1, lines 13-19 “an input image... is compressed and stored as image information”).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

Application/Control Number: 09/251,403
Art Unit: 2615

Page 10


or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
March 19, 2003


VINCENT BOCCIO
PRIMARY EXAMINER